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ABSTRACT

There are three comprehensive and inclusive tasks involved in cross-cultural implementation of programmed instruction: 1) the origination of a program; 2) the selection and adaptation of a program for use in a second culture; and, 3) the evaluation of a program in view of the particular target population involved. These three tasks for cooperative and organized teamwork, and the qualifications of the team are enumerated. Specific attention is given to the delineating tasks concerned with the translation, and structure of the program. (Author/VW)

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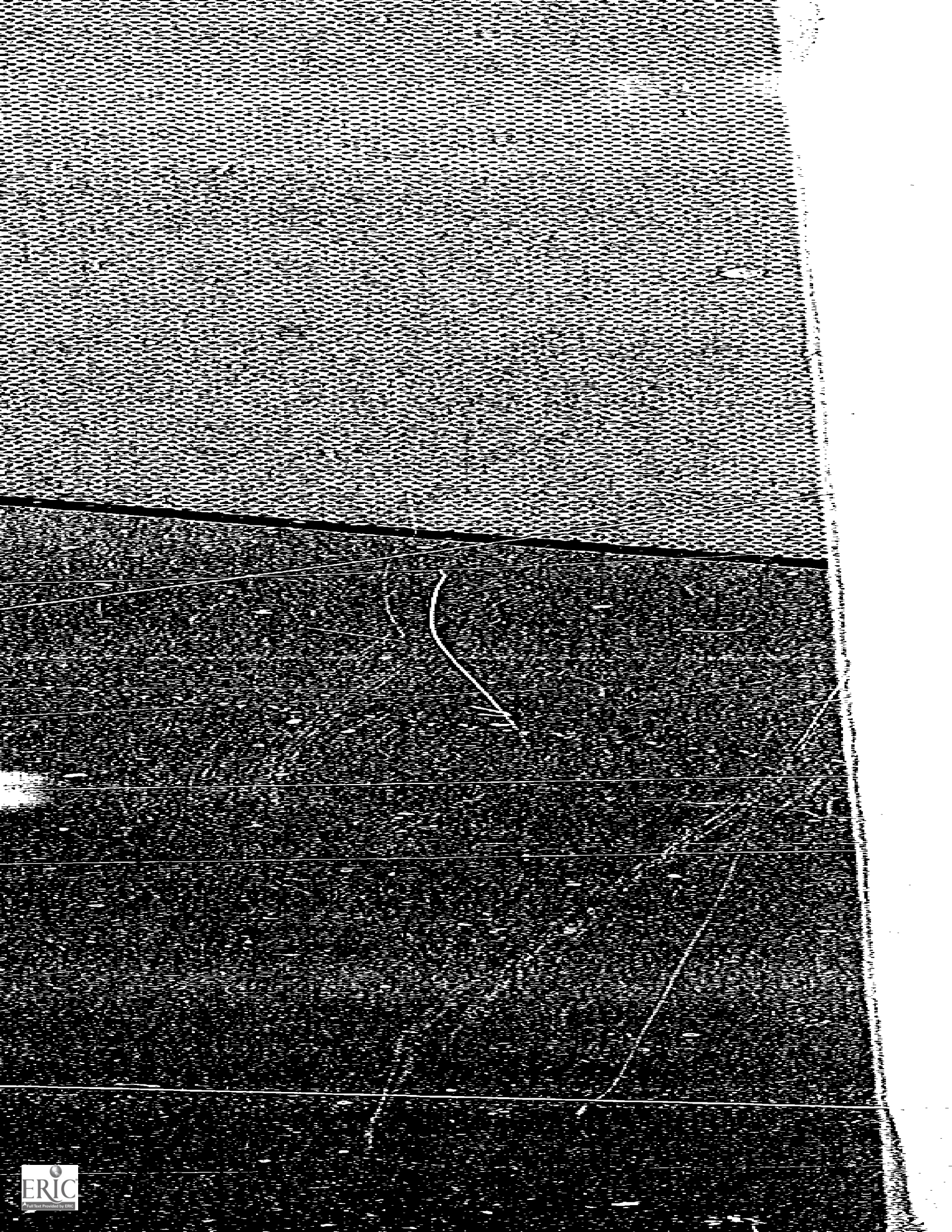
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**CROSS-CULTURAL ADAPTATION  
OF PROGRAMMED INSTRUCTION**

**Human Learning Research Institute**

**April 14, 1970**

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## CROSS-CULTURAL ADAPTATION OF PROGRAMMED INSTRUCTION

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In the field of programmed instruction, much has already been accomplished to advance specialized learning techniques. Much of the work, however, has been related specifically to the English-speaking world. If other cultures are to be included in this particular kind of learning experience, certain modifications will be necessary. There are three comprehensive and inclusive tasks involved in cross-cultural implementation of programmed instruction.

- 1) the origination of a program;
- 2) the selection and adaptation of a program for use in a second culture;
- 3) the evaluation of a program, in view of the particular target population involved.

These three tasks lend themselves to cooperative, organized teamwork rather than to the isolated efforts of a single individual.

Origination. To originate a program, a team consisting of persons with the following qualifications must be available:

1. Knowledge of the subject content of the chosen material;
2. Cultural awareness of the target population;
3. Training in the theoretical views of human learning and in the ability to apply this knowledge to subject matter with appropriate cultural awareness;
4. A comprehensive background of instructional procedures to be applied in such a way as to develop a diverse range of varied programs which encourage learning in the context of the three items above.

Selection. In order to select programs having value to learners in a specific culture, the following steps should be taken:

1. The content of the program should be analyzed in its relation to the subject as a whole;
2. The program should be viewed in terms of the total cultural matrix of the target population; the objectives of the program must either be immediately acceptable, or they must be able to be readily adapted in order to be culturally congruent with the target population.
3. The learning procedure of the selected program should also be examined as to whether it allows for ready comprehension by the target population. It is possible that programs from certain cultures will readily transfer cross-culturally; in other cases, extensive restructuring will be necessary in order to make programs acceptable within the learning patterns of the target culture.

Evaluation. In evaluating a particular program, the question arises as to whether cross-cultural evaluation is possible or whether assessment is inherently limited to one particular culture. Of some concern in the evaluation is the matter of origin of the program. Did it originate within the culture? Was it modified from another culture? Or, is it merely translated without any attempt to "re-tune" it to make it more effective for the target culture. In order to predict a program's effectiveness, an evaluation procedure is needed. The following factors should be considered in making this appraisal:

1. Content: How satisfactory is the content of the program in relation to the subject matter? Is it relevant, can it be taught in isolation, or should it be phased in as part of another larger program or curriculum?
2. Language: Is language translation necessary? If the language has been translated, is the translation totally meaningful to the target population? A rating must be based on the variables of the structure, the vocabulary, and the affective tone of language.
3. Relationship to the culture: The program must be evaluated in connection with the target population's total ethos and value system.
4. Learning procedure: The learning procedure assumed by the program should be culturally consonant with learning as experienced by learners of the target culture.
5. Instructional Strategy: The program must be analyzed in terms of congruence between the instructional strategies of the program and those through which learners in the target culture can function competently.

Certain tasks need to be isolated and assigned to individuals with specialized training. Translation and instructional program design are the two major categories of specialized effort. Translators would need to be coordinated by a master translator who would serve to edit the more complicated tasks, as would relate to cultural and affective aspects of the language. The program adapters would similarly work under a master programmer selected for his highly competent understanding of the learning



experiences of those in the target culture.

### TASKS CONCERNED WITH LANGUAGE OR TRANSLATION

Single Translation. In the process of translation, the final touches should be made by a translator who is working in his mother tongue. If a program in language A is translated to language B, then the translator, at least the final translator should be fluent in A and a native speaker of B.

Multiple Translation. It may be necessary, in some cases, for a program to be translated via an intermediary language. For instance, to translate a German program into a South American Indian language, the use of Spanish or Portuguese might be appropriate as an intermediate step.

Grammar. After direct translation, the program must be checked for any awkwardness in grammatical structure. Any sentence or phrase found to be grammatically strange or alien should be corrected accordingly.

Idiomatic Usage. However well a program has been translated, the problem of idiomatic usage is always highly significant. The master translator should be expert in all the linguistic aspects of the two languages concerned so that a cogent translation of idioms from the first language to the second will be as accurate and meaningful as possible.

Dialogue Tone. The term "dialogue tone" refers to either the degree of intimacy inherent in a language, or it may refer to the social grammatical form which is acceptable to a given culture. Cultures reflecting a higher degree of social formality will require a more formal type of dialogue than the rhetoric in a program originated, for example, in the United States. It is important to relate to the target population by



planning around the various linguistic conventions. For instance, it is important to discern the differences between the use of "tu" and "usted" in the Castilian language; similarly, a translation of German must observe the proprieties involved in the use of "Du" and of "Sie". Here again, the master translator, sensitive to the social aspects of the culture in question, should supervise the attempts to modify the dialogue tone.

The structure of the program, just as the translation, may also be divided into several separate tasks. These tasks may be assigned to trained programmers. The final auditing of work involving more complicated cultural variables should be directly supervised by a master programmer.

#### TASKS CONCERNED WITH THE STRUCTURE OF THE PROGRAM

Objectives. When the program is foreign in origin, a programmer should examine the objectives of the original program in view of the target culture. If the original objectives are incompatible with the target culture, then they should be modified in the context of the target culture.

Target Population. When the objectives have been defined, a programmer must identify and limit the target population according to those stated objectives. The problem here relates to the fact that in the target culture the program may be more appropriate for a different sort or level of learner than was intended in the originating culture.

When a program is of foreign origin, two task analyses are necessary to compare the concepts of the two programs. A programmer who speaks the original program language as a mother tongue, should compare his program analysis with that of another programmer who will have done an

analysis of the program as translated into his own language. Otherwise there is no way to assure that significant potentialities of the program have not been lost in the translation process.

Prompting check. The final program is examined by a competent programmer for evidence of under or over-prompting (cuing). If the amount or the nature of the prompting devices is unsatisfactory, in view of the target culture necessary adjustments must be made.

As programming is expanded to include diverse cultures, certain potential variables may become evident through cross-cultural consensus.

### 1. Order of Frames

It must be remembered that many handwriting scripts vary in the direction in which they are read. Arabic, for instance, is read from right to left, classical Chinese, from top to bottom, and Japanese, from top to bottom and from right to left. Taking this into account, the order of frames and the logic of formats must be altered accordingly.

### 2. Balance of Frames

The degree of exposure to programmed instruction which a particular culture has experienced will determine the balance of frames. For example, it may be found that cultures with little or no knowledge of programmed instruction may need a greater proportion of teaching frames to criterion frames.

### 3. RULEG EGRULE

With the increased use of programming in varied cultures, it will most likely be found that certain cultures, due to their acquired learning habits, will respond to ruleg rather than to

egrule, or vice versa. We can be almost certain that the human learning process varies considerably from one culture to another, so variation in the way inferences are to be drawn are predictably different from one culture to another.

Finally, an adapted program should be reviewed by one who is thoroughly aware of the endemic aspects of the particular target culture. His major task will be to look for "noise" in the program. Ostensibly, this final analysis by master programmer should reveal any inaccuracies, any imbalance between teaching structures, such as prompts, used figures and diagrams and any other incongruities which may interfere with the success of the program.





